

371.365
m 76
1906
c. 2

State of Montana

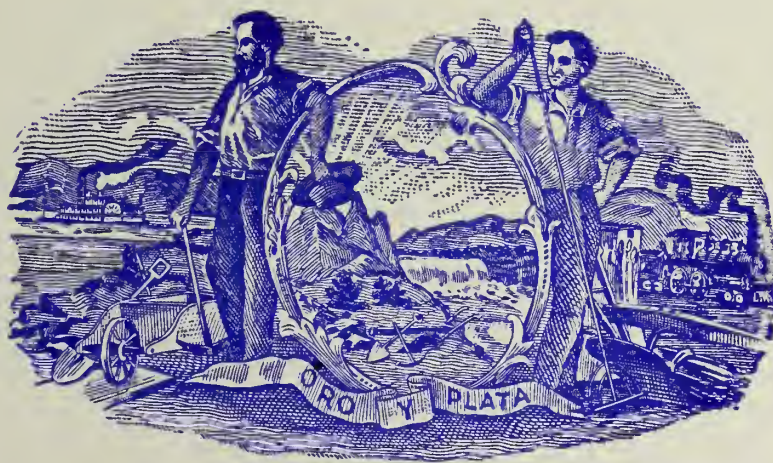
Department of Public
Instruction

Arbor Day Manual

"The Groves Were God's First Temples"

State Flower, The Bitter Root

"Lewisia Rediviva"



Arbor Day

May 8th, 1906





Digitized by the Internet Archive
in 2012 with funding from
Montana State Library

State of Montana
Department of Public
Instruction

Arbor Day Manual

"The Groves Were God's First Temples"

State Flower, The Bitter Root

"Lewisia Rediviva"



Arbor Day

May 8th, 1906



INTRODUCTION.

This manual of Arbor Day will soon be sent to the school authorities in every section of Montana. The chief object in scattering copies of it broadcast to all parts of the state is to encourage and foster an interest in tree planting by the school children, teachers, trustees, and citizens in every school district of the state, to inform them in regard to the kind of trees best suited for growth and development in our soil, to inform them when and how to prepare the ground for trees, how to plant them, and how to care for them after planting.

Arbor Day within the past thirty years has taken such a strong hold upon the American people that its annual observance, like that of Thanksgiving Day, is now encouraged and recommended by nearly every state in the union. The real advantages to result from intelligent tree planting are too well known and apparent to need explanation here.

A little effort on the part of our school trustees, teachers, children, and citizens, if carefully and systematically directed, will result in the planting of trees within their school yards and grounds, about their home premises and surroundings, and along the roads and highways leading to them.

The changes and improvements resulting from such efforts would be at once marked, and beneficial. The advantages of such efforts already accruing to Nebraska, Kansas, and all the older states, might easily be secured for Montana. Beautifying our school grounds, home premises, our roads and highways, and improving them by planting trees and by caring for their growth and development are the objects and purposes of this manual. It is composed largely of information culled from many school reports relating to Arbor Day and its observance. If the ideas and suggestions herein advanced result in even a partial observance of Arbor Day, then the purpose of this manual will in a large degree be accomplished.

W. E. HARMON,

Superintendent of Public Instruction.

Helena, Montana, April 20, 1906.

HISTORY OF ARBOR DAY.

Tree planting upon a national scale is a distinct American custom now sanctioned by law in nearly every state in the Union.

Tree planting in European countries has from time immemorial been practiced by its different peoples whenever and wherever the idea forced itself upon them. It seems to have become a custom sanctioned by law and observed generally in European countries.

The rapid destruction of the forests in our country called attention of students of forestry to the dangers which confronted us and brought forth numerous publications on the topic of forest preservation. In 1864 a work on "Man and Nature" by Geo. P. Marsh, aroused considerable public interest in tree planting as did also later books by Dr. Franklin Hough and others.

The Hon. B. G. Northup, Secretary of the Connecticut Board of Education in his official report for 1865, made the suggestion respecting the annual planting of trees by children, but so far as recorded the suggestion was not acted on. Notwithstanding this fact and also that Mr. Northup does not claim the honor of originating the idea, yet much credit should be accorded him, as chairman of the American Forestry Association, for his persistent effort to encourage tree planting by children and to interest governors and legislatures in the plan. His last words to several governors was "This thing is sure to go. The only question is, shall it be under your administration or that of your successor?"

It devolved, however, upon "Treeless Nebraska" to institute systematic tree planting on a given day through the organized effort of schools and citizens. The Hon. J. Sterling Morton is generally credited with originating the idea. In 1872, acting upon his suggestion, the governor of the state issued a proclamation designating Arbor Day and asking that the schools and citizens generally observe the day by appropriate exercises and tree planting. The setting April sun saw over a million trees planted in Nebraska soil as a result of the first Arbor Day celebration. In 1875 Arbor Day, April 22d, Morton's birthday, was made a legal holiday in Nebraska. Careful statisticians claim that more than 1,000,000,000 trees are now in a thriving condition in this once "treeless state," through the united efforts of the school children and their parents on Arbor Day.

The originator of the idea lived long enough to see Arbor Day

adopted in more than forty states and territories, to record millions of trees added to the growing prosperity of the states, to note thousands of school houses change cheerless surroundings for those of comfort and beauty and to feel that in stimulating the planting of trees he had been an active factor in fostering a love for the school, the home, and our country.

Minnesota is given the credit of being the first state to follow the lead of Nebraska, with Kansas and Tennessee close seconds. Ohio, Iowa, Illinois, Michigan and West Virginia followed a few years later. The influence of the idea has spread until Arbor Day is celebrated in nearly every state and territory in the Union. While the Schools have been the strongest factor in this forward movement due credit must be given to the G. A. R., the Grange, Civic Improvement Associations, Women's Clubs, and Forestry Associations that have all worked for the common good.—Illinois Arbor and Bird Day 1906.

LAW CREATING ARBOR DAY.

Section 1991. In order that the children in our public schools shall assist in the work of adorning the school grounds with trees, and to stimulate the minds of the children towards the benefits of the preservation and perpetuation of our forests and the growing of timber, it shall be the duty of the authorities in every public school district in this State to assemble the children in their charge on the above day in the school building or elsewhere, as they may deem proper, and to provide for and conduct under the general supervision of the city superintendent, county superintendent, teachers and trustees or other school authorities having the general charge and oversight of the public schools in each city or district to have and hold such exercises as shall tend to encourage the planting, preservation, and protection of trees and shrubs, and an acquaintance with the best methods to be adopted to accomplish such results

ARBOR DAY PROCLAMATION.

The people of this state are beginning to reap the pleasure and profit of planting trees. It is important that this great work should continue to receive the assistance and encouragement of every man, woman and child who cares for the welfare of the state.

“There is fine patience and broad charity in the man who plants a tree. No one action better typifies the real purpose of our living.

“He who plants a tree may never enjoy its shade or gaze upon its full-grown splendor, but he is doing what he can to make the world a wholesomer and happier dwelling-place for those who come after him.

“Of all man’s works of art a cathedral is the greatest. A vast and majestic tree is greater than that. If the groves were the first temples, it is equally true that the tree was the first to suggest to man’s mind the infinite.

“From the first it has furnished man with shelter and fuel. Under its leafy dome the greatest charter of human rights has been signed; the world’s greatest treaties have there been written; and the surrender of great armies has been concluded there. But for the tree human history would be a thin tale soon told.

“Beneath the tree the weary have rested and found strength and hope; there lovers have trysted since love first illuminated the world; there children have played and restored it; to the soothing shade man ever has turned with his griefs and found calm and peace.

“He who plants a tree plants shade, rest, love, hope, peace, for troubled ones who will come his way when he is gone. Is it not a noble monument to leave?

“There is nothing in which God asks so little of us and gives so much as in the planting of a tree. He gives the soil, the seed, the moisture, the sunshine, the air—aye, and the selfless impulses to do our own little part of just planting it comes from him, too.”

I accordingly and pursuant to law hereby designate Tuesday, May 8, 1906, as Arbor Day, and hereby declare the same to be a legal holiday, at which time it is hoped that the people of the state

will with one accord observe the spirit and purpose of this proclamation.

In witness whereof, I have hereunto set my hand and caused the great seal of the State of Montana to be affixed.

Done at the City of Helena, the second day of April, A. D. one thousand nine hundred and six, and of the independence of the United States the one hundred and thirtieth.

JOSEPH K. TOOLE,
Governor.

By the Governor:

A. N. YODER,
Secretary of State .

THE OBSERVANCE OF ARBOR DAY.

To the County Superintendents, School Trustees, Teachers and Citizens of Montana:

Our governor, Hon. J. K. Toole, in his recent proclamation has designated Tuesday, May 8th, as Arbor Day, and I hope and trust that you all will observe that day in some fitting and appropriate manner. The wisdom of observing Arbor Day has long been recognized by the people of our country. The particular object of Arbor Day is to make our school grounds and the avenues leading to them more attractive, inviting, and healthful. By complying in spirit and action with the governor's proclamation the parents, trustees and teachers in every one of the 850 school districts of our state, will materially help and assist in the work of beautifying our school grounds and in rendering them places of comfort, pleasure, and instruction for the girls and boys now in school and for the permanent enjoyment of those who will succeed them.

The undersigned hereby urges you and appeals to you to indorse the governor's proclamation by devoting the time of Arbor Day, otherwise given to your several pursuits and occupations, to the planting on the schoolgrounds of trees and shrubs, and to the making of school gardens wherever they may become practicable.

Supt. Stockwell of North Dakota says: "School Boards should be constantly reminded of the necessity of properly fencing school grounds, and of co-operating with teachers and pupils in carrying on the work of tree planting and otherwise beautifying the

schoolgrounds and buildings. The planting of trees and the protection of birds go hand in hand and we wish to impress upon the pupils the necessity and benefit of protecting our birds, for without them plant life would materially suffer. Let Arbor Day be entirely devoted to caring for, and beautifying, our school grounds and buildings and in instructing our school children in the necessary methods of caring for, and planting of trees, the making of school gardens, and the protection of birds." Supt. Bayliss of Illinois, says: "In planning for Arbor Day look to the future. Do not be content with a fine programme. Aim to secure permanent results. Devise a plan for improving your school grounds. You may not be able to complete your plan fully this year, but that a plan, the best one possible, under the circumstances, is made a guide for present and future work. Do not attempt anything too elaborate or expensive. Settle upon some simple, yet definite, plan for improvement, and then work to accomplish it. The particular way and manner for accomplishing this work must be left largely to the resources of the teacher. The differing circumstances of towns and country schools will require different plans of procedure. Much depends upon the teacher in starting the right kind of movement, while the responsibility of executing it must in a large degree fall upon the pupils and patrons." We fully indorse these sentiments. They have the right ring. They are at once stirring, forcible, practical. The work of Arbor Day is a fitting season for the clearing up to schoolgrounds and yards, for repairing the walks and fences, for trimming the hedges, shrubs and trees adorning them, and for carting off the unsightly quantities of debris always collecting on them.

We hope and trust that our next Arbor Day in response to the governor's proclamation will result in converting many treeless and cheerless schoolgrounds into places of comfort and pleasure, many unsightly backyards into gardens of profit, and many unkept front yards into lawns of beauty.

Very truly yours,

W. E. HARMON,

Superintendent of Public Instruction.

SUPERINTENDENT'S LETTER TO CHILDREN.

Helena, Montana, May 8, 1906.

Dear Girls and Boys of Montana:

This is the day set apart by law for tree planting. It will give you a rest from regular studies and permit you to aid in beautifying your school grounds and yards at home. You all enjoy a day in the country, along the roads where you may observe the busy farmer sowing his grain and, we hope, planting trees here and there for ornamentation. You will also enjoy later in the year trips to the canyons and hills where you can hear the singing of birds, the purling of brooks, and the whisperings of the trees. You love them because they are the voices of nature, the sweetest of all voices.

You can aid in making your home, your school yard, your city, more beautiful. Make a study of your home grounds. Do they present to the traveler a picture that is pleasing to the eye? Are the fences in good repair and painted? Are the paths and walks about the house in the right place? Are there broken planks in the walk? Are the gates off the hinges? Are the trees systematically arranged and well pruned? Have you shrubs and flowers? Trees, shrubs, and flowers make attractive yards if proper care is bestowed upon them. Montana now has many attractive school yards, and yet there are many that need to be made more sightly. The once treeless plains of Illinois, Nebraska, Kansas and many other states are now grand and beautiful to behold, and they have become thus grand and beautiful by systematic industry in tree planting and tree cultivation. Arbor Day is for you, it is for us, it is for those coming after us. It first became a legal holiday in Nebraska in 1872, and since that date more than forty states have enacted laws in regard to it. Its observance recalls the past, brightens the present, and makes glad the future.

I hope you will to-day plant trees and shrubbery that in after years may be to you a source of pride and satisfaction, because by so doing you will add to the attractions of your homes and school grounds and thus make more beautiful both country and city.

Cordially yours,

W. E. HARMON,

Superintendent of Public Instruction.

HINTS FOR PLANTING.

To be successful in tree growing, as with all other plants, it is important that they be planted in good soil. Where the top or subsoil is a heavy clay or sand, holes sufficiently large must be made to permit the addition of some good black soil. For ordinary sized trees on poor soil holes three feet in diameter and two feet deep are not too large, while for shrubs that are to be planted in groups or masses, the soil must be trenched to a depth of eighteen inches, the poor soil removed and good rich soil put in its place. It is just as important to have rich soil for the growth of trees as it is for the production of any farm crop.

When trees or shrubs are received from the nursery they should be unpacked at once and, if it is impossible to plant them, heeled in, that is placed in a trench, deep enough to receive the roots, with the tops slanting away from the prevailing winds. The plants should be left in this trench until the holes are dug and all preparations made for planting, and taken from the trench a few at a time and set out without permitting the roots to become dry.

At planting time all the broken roots should be cut off, making a smooth cut as this encourages the formation of new rootlets,—the feeding portion of the root system.

The tops of trees or shrubs should also be cut back to correspond with the part of the root system that has been lost in the process of digging. It is necessary to re-establish the balance between the tops and the roots, otherwise the leaves will give off more moisture than the roots are able to take up.

The plants should be placed in the hole just a trifle deeper than they stood in the nursery. The dark ring at the crown of the plant will indicate the depth at which the plant grew in the nursery. Fill in around the roots with fine moist earth working the soil in among the roots with the fingers. It is very important that no air spaces be left next the roots and this can best be guarded against by taking precautions when putting in the first soil. When the roots have been covered, and the soil firmly tamped down with the feet or tamper, the hole may then be filled about two-thirds full, and if the dirt is dry it is best to fill the remainder of the hole with water and allow it to soak away. This not only supplies the necessary moisture but also packs the soil around the roots, a condition

that is conducive to the best results. After the water is soaked away the hole may then be filled, leaving the top soil, fine and loose in order to prevent excessive evaporation.

The roots of trees or shrubs require a certain amount of air and this can be given only by cultivation. Cultivation or digging around the tree also keeps the soil in such physical condition that the roots can take up the moisture and the plant food necessary for plant growth and permits the absorption of water by the soil. In many of our clay soils, water will not soak in to a sufficient depth for the roots to use it unless the soil is kept loose and this can only be done by frequent spading around the trunks of the trees. The roots of trees extend over a much wider area than do the tops and in watering it is necessary to keep this fact in mind and apply the water not only immediately around the trunk but also for a considerable distance away otherwise the fine rootlets can not get at the water.

Below altitudes of 4500 feet the Carolina Poplar and American Elm will give the best satisfaction as shade or street trees when plenty of water is applied. They both require a moist soil in which to grow and it is absolutely useless to attempt to grow them unless there is a good supply of water available.

For ornamental purposes the White Birch and European Mountain Ash are very desirable and both are hardy in all parts of this State. There is no ornamental shrub that will grow as well or give better results than the Lilac, of which there are several varieties. It also blooms early in the Spring, before school is dismissed for the Summer vacation, a fact that adds much to its value for planting on the school grounds.

The *Caragana Arborescens*, *Caragana Frutescens*, *Spiraea Van Houttei*, Snow Ball, our native Mock Orange and other native shrubs are also well adapted to school ground planting.

R. W. FISHER,
Horticulturist, Mont. Agri. Exp. Station.

SUGGESTIVE PROGRAMME.

1. Song—Arbor Day March (Air—Marching Through Georgia.)
2. Reading of Governor's Proclamation.
3. Reading of History of Arbor Day.
4. Reading of Superintendent's Letter to Children.
5. Song—"We Love the Trees," (Tune—"There's Music in the Air.")
6. Historic Trees.
7. Recitation—"Woodman, Spare That Tree."
8. Dialogue—"What the Trees Teach Us."
9. Essay—Beautiful School Grounds.
10. Song—Springtime, (Air—"Auld Lang Syne.")
11. Quotations—Selected.
12. Recitation—Planting the Trees.
13. Recitation—The Little Red Apple Tree.
14. Essay—Ideal Home Grounds.
15. Address by some speaker or visitor
16. Song—Arbor Day Anthem, (Tune, America.)
17. Planting Trees and Shrubs by Pupils.

ARBOR DAY MARCH.

By Ellen Beauchamp.

(Air—Marching Through Georgia.)

Celebrate the Arbor Day
With march, and song, and cheer,
For the season comes to us
But once in every year;
Should we not remember it
And make the mem'ry dear,
Memories sweet for this May day?

Hurrah! Hurrah! The Arbor Day is here.
Hurrah! Hurrah! It gladdens every year;
So we plant a young tree on blithesome Arbor Day,
While we are singing for gladness.

Flow'rs are blooming all around,
Are blooming on this day;
And the trees, with verdure clad,
Welcome the month of May,
Making earth a garden fair
To hail the Arbor Day,
Clothing all nature with gladness.

WE LOVE THE TREES.

(Tune: "There's Music in the Air.")

We love the grand old trees,
With the Oak, their royal king,
And the Maple, forest queen,
We to her our homage bring;
And the elm with stately form,
Long withstanding wind and storm,
Pine, low whispering to the breeze,
Oh, we love the grand old trees!

We love the grand old trees,
The cedar bright above the snow,
The poplar straight and tall,
And the willow weeping low,
Butternut and walnut too.
Hickory so staunch and true,
Basswood blooming for the bees,
O, we love the grand old trees!

We love the grand old trees,
The tulip branching broad and high,
The beech with shining robe,
And the birch so sweet and shy,
Aged chestnuts, fair to see,
Holly bright with Christmas glee,
Laurel crown for victories,
O, we love the grand old trees!

—Ada S. Sherwood, in *Journal of Education*.

HISTORIC TREES.

The "Burgoyne Elm," at Albany, N. Y. This tree was planted on the day the British general, Burgoyne, was brought a prisoner into Albany, the day after he surrendered to our army in the Revolutionary War.

The Weeping Willow in Copp's burying round, near Bunker Hill. This willow was grown from a branch that was taken from the grave of Napoleon Bonaparte at St. Helena.

The Ash Trees, planted by General Washington at Mt. Vernon, Va. These form a beautiful row of immense trees, which everybody admires who visits the home of the Father of His Country.

The Cary Tree. This tree was planted by Alice and Phoebe Cary, the poet sisters, who have written so many beautiful poems

for children. It is a beautiful Sycamore in Ohio, near Cincinnati.

Old "Liberty Elm." This famous tree used to stand on Boston Common, but was blown down in a storm. It was planted by a schoolmaster long before the Revolutionary War, and dedicated to the liberty of the colonies.

Washington Elm. Under the shade of this grand old Elm General Washington first took command of the colonial army in 1775, at Cambridge, Mass.

The William Penn Tree in Philadelphia. In that city stands a monument which marks the spot where once stood the tree under which William Penn made his famous treaty with the Indians.

The Charter Oak. It was an old, hollow oak in which the early colonists hid their charter to prevent its being taken from them by the British Governor, Andros. It stood near Hartford, Conn.

The giant trees of California. Within an area of fifty acres there are about five hundred of these trees, ninety of which are of great size. Among these are the "Washington Tree," "The Miner's Cabin," a hollow tree, three hundred feet high with an excavation thirty feet in circumference; "Three Sisters," which spring from one root, and are so interlaced as to appear but one tree; and "The Riding School," a hollow tree, which has been blown down, and into which a horse may be ridden seventy-five feet, and then turned around.

The cedars of Mount Lebanon, some of them over thirty feet in diameter.

The Banyan trees of India. One of them in Ceylon throws a shadow at noon over four acres of ground.

Shakespeare's mulberry tree, planted at Stratford-on-Avon, by the poet's own hand, and cut down in 1786, "wantonly and brutally," by the Rev. F. Gastrel.

WOODMAN, SPARE THAT TREE.

By George P. Morris.

Woodman, spare that tree!
Touch not a single bough!
In youth it sheltered me
And I'll protect it now.
'Twas my forefather's hand
That placed it near his cot;
There, woodman, let it stand;
Thy ax shall harm it not.

That old familiar tree,
Whose glory and renown
Are spread o'er land and sea,—
And wouldst thou hew it down?
Woodman, forbear thy stroke;
Cut not its earth-bound ties;
O, spare that aged oak
Now towering to the skies!

When but an idle boy
I sought its grateful shade;
In all their gushing joy
Here too my sisters played,
My mother kissed me here,
My father pressed my hand;
Forgive this foolish tear,
But let that old oak stand!

My heart-strings 'round thee cling,
Close as thy bark, old friend!
Here shall the wild bird sing,
And still thy branches bend.
Old tree, the storm still brave!
And, woodman, leave the spot;
While I've a hand to save,
Thy ax shall harm it not.

WHAT THE TREES TEACH US.

First Pupil.

I am taught by the Oak to be rugged and strong
In defense of the right; in defiance of wrong.

Second Pupil.

I have learned from the Maple, that beauty to win
The love of all hearts, must have sweetness within.

Third Pupil.

The Beech, with its branches wide-spreading and low,
Awakes in my heart hospitality's glow.

Fourth Pupil.

The Pine tells of constancy. In its sweet voice
It whispers of hope till sad mortals rejoice.

Fifth Pupil.

The nut-bearing trees teach us that 'neath manners gruff,
May be found as "sweet kernels" as in their caskets rough.

Sixth Pupil.

The Birch, in its wrappings of silvery gray,
Shows that beauty needs not to make gorgeous display.

Seventh Pupil.

The Ash, having fibers tenacious and strong,
Teaches me firm resistance, to battle with wrong.

Eighth Pupil.

The Aspen tells me with its quivering leaves,
To be gentle to every sad creature that grieves.

Ninth Pupil.

The Lombardy Poplars point upward, in praise,
My voice to kind Heaven they teach me to raise.

Tenth Pupil.

The Elm teaches me to be pliant yet true;
Though bowed by rude winds, it still rises anew.

Eleventh Pupil.

I am taught generosity, boundless and free,
By the showers of fruit from the dear Apple tree.

Twelfth Pupil.

The Cherry tree blushing with fruit crimson red,
Tells of God's free abundance that all may be fed.

Thirteenth Pupil.

In the beautiful Linden, so fair to the sight,
This truth I discern: It is inwardly white.

Fourteenth Pupil.

The firm-rooted Cedars like sentries of old,
Show that virtues deep-rooted may also be bold.

—Helen O. Hoyt, in the Teacher's World.

SPRINGTIME.

Air—"Auld Lang Syne.

The winter storms have passed away,
And springtime now is here
With sunshine smiling all around,
And heavens blue and clear.
The gifts of Nature brighten earth,
And Nature her garden gay;
They give a cheery greeting bright
On this, the Arbor Day.

The birds with gladsome voices sing,
Each its melodious lay,
And music swells each little throat
On this, the Arbor Day.
The trees put forth their greenest leaves
On this, the Arbor Day,
And welcome now the chosen tree
Which we shall plant to-day.

—Ellen Beauchamp.

QUOTATIONS FOR ROLL CALL.

I think no man does anything more visibly useful to posterity than he who plants a tree.—J. R. Lowell.

When we plant a tree we are doing what we can to make our planet a more wholesome and happier dwelling place for those who come after us if not for ourselves.—O. W. Holmes.

In those vernal seasons of the year, when the air is calm and pleasant, it were an injury and sullenness against nature not to go out and see her riches, and partake in her rejoicing with heaven and earth.—Milton.

Though we travel the world over to find the beautiful, we must carry it with us or we find it not.—Emerson.

Now every field and every tree is in bloom; the woods are now in full leaf, and the year is in its highest beauty.—Virgil.

The tree planter and teacher united in one shall be declared the best benefactor of modern times—the chief provider for posterity.—H. Sterling Morton.

Our yards, our school house yards, and the resting places of our dead, should not be neglected, but should be adorned with nature's own beautifiers—the trees.—Emma F. Bates.

Do not rob or mar a tree, unless you really need what it has to give you. Let it stand and grow in virgin majesty, ungirdled, and unscarred, while the trunk becomes a firm pillar of the forest temple, and the branches spread abroad a refuge of bright green leaves for the birds of the air.—Dr. Henry Van Dyke.

The man who builds does a work which begins to decay as soon as he has done, but the work of the man who plants trees grows better and better, year after year, for generations.

To own a bit of ground, to scratch it with a hoe, to plant seeds and watch their renewal of life—this is the commonest delight of the race, the most satisfactory thing one can do.—Charles Dudley Warner.

There is no spot on earth which may not be made more beautiful by the help of trees and flowers.—Holmes.

Whether pluming the mountains, edging the lake, eye-lashing the stream, roofing the water-fall, sprinkling the meadow, burying the homestead, or darkening leagues of hill, plain and valley, trees have always "haunted me like a passion."—Alfred B. Street.

What earnest worker, with hand and brain, for the benefit of his fellowmen, could desire a more pleasing recognition of his usefulness than the monument of a tree, ever growing, ever blooming, and ever bearing wholesome fruit?—Irving.

With every green tree that surrounds us with its leafage, with every shrub on the roadside where we walk, with every grass-blade that bends to the breeze in the field through which we pass, we have a natural relationship. They are our true compatriots. The birds that leap from twig to twig in our gardens, that sing in bowers, are part of ourselves.—Goethe.

A man does not plant a tree for himself; he plants it for posterity; and sitting idly in the sunshine, I think at times of the unborn people who will to some extent be indebted to me. Remember me kindly, ye future men and women.—Alexander Smith.

What conquerer in any part of life's battle could desire a more beautiful, a more noble, or a more patriotic monument than a

tree planted by the hands of pure and joyous children, as a memorial to his achievements.—B. J. Lossing.

For many years I have felt a deep interest in the preservation of our forests and the planting of trees. The wealth, beauty, fertility and healthfulness of the country largely depend upon it. My indignation is yearly aroused by the needless sacrifice of some noble oak or elm and especially of the white pine, the grandest tree in our woods, which I would not exchange for the oriental palm. My thanks are due to the public school which is to plant a group of trees in your Eden Park in my honor.—John G. Whit-
tier, to the school children of Cincinnati.

PLANT THE TREES.

(Written for Nebraska Bird and Arbor Day Manual by Mrs. N.
S. Bell, University Place.)

O, plant the trees, the graceful trees
Which God has given man;
We can not all secure a plot,
But plant them all who can.

Plant them in the open streets,
Plant them 'round the home,
Plant them where the toilers are,
Where weary lab'ers come.

And only but one grain of care
Is needed, that they throw
Their little splendor rootlets out,
To cling and thrive and grow.

So plant the trees, O children dear,
While young and free from care,
And watch their needs and rapid growth
Out in the healthful air.

THE LITTLE-RED-APPLE TREE.

By James Whitcomb Riley.

The Little-red-apple Tree!—
O the Little-red-apple Tree!
When I was the little-est bit of a boy
And when you were a boy with me!
The bluebird's flight from the topmost boughs,
And the boys up there—so high
That we rocked over the roof of the house
And whooped as the winds went by!

Ho! The Little-red-apple Tree!
With the garden-beds below,
And the old grape-arbor so welcomely
Hiding the rake and hoe;
Hiding, too, as the sun dripped through
In spatters of wasted gold,
Frank and Amy away from you
And me in the days of old.

The Little-red-apple Tree!—
In the edge of the garden-spot.
Where the apples fell so lavishly
Into the neighbor's lot;—
So do I think of you,
Brother of mine, as the tree,—
Giving the ripest wealth of your love
To the world as well as me.

The Little-red-apple Tree!
Sweet as its juiciest fruit
Spanged on the palate spicely,
And rolled o'er the tongue to boot,
Is the memory still and the joy
Of the Little-red-apple Tree,
When I was the little-est bit of a boy
And you were a boy with me!

ARBOR DAY ANTHEM.

(Tune—"America.")

Joy for the sturdy trees!
Fanned by each fragrant breeze.
Lovely they stand!
The song-birds o'er them thrill,
They shade each tinkling rill,
They crown each swelling hill,
Lowly or grand.

Plant them by stream or way,
Plant where the children play
And toilers rest;
In every verdant vale,
On every sunny swale,
Whether to grow or fail,
God knoweth best.

Select the strong, the fair,
Plant them with earnest care --
No toil is vain.
Plant in a fitter place,
Where like a lovely face,
Set in some sweeter grace,
Change may prove gain.

God will his blessing send—
All things on him depend.
His loving care
Clings to each leaf and flower
Like ivy to its tower,
His presence and his power
Are everywhere.

—Dr. S. F. Smith, author of *America*.

The following material is herein inserted to be used at the discretion of teacher.

SCHOOL GARDENING.

The interest in school gardening the last decade has grown and deepened far beyond all expectation or anticipation.

Twenty years ago school gardening, much like manual training of an earlier date, was often regarded as a silly experiment favored and indulged only by a few pedagogical fanatics. But with all the ridicule heaped upon it school gardening during the past ten years has had a phenomenal growth. Many of its foes twenty years ago are now its strongest advocates. It has forced its way steadily into the favor of our leading educators. To-day in a large number of our old and leading states it is considered no longer an experiment but a necessity.

In regard to this subject the first and only questions raised by the common sense thinking public are,—What is the end and aim of school gardening? What does it amount to? Of what practical benefit will it be to our girls and boys? What are the beneficial results thus to be secured? In short will it pay to teach and to

develop school gardening as a part of our common school instruction?

All these questions are to a large extent considered, treated, and answered in the various bulletins issued from time to time by the United States department of Agriculture, and in the various school reports of the older states. Extracts from these sources we herein insert to answer the above questions and to inform the Montana public how the subject of school gardening is considered and treated by our leading educational authorities.

"Agriculture in its broadest sense is the primary basis of wealth in this country and it seems essential that efforts should be made in our educational system to bring early to the mind of the child facts which will be of value as emphasizing the importance and necessity of agricultural work. There is no better way to do this than through a well managed and well conducted system of school garden training." "School gardens are not intended to create gardeners or farmers, but to afford the growing boy and girl an opportunity for a many sided development." School gardening teaches children in a systematic way how to prepare ground for plants, shrubs and seeds, how to watch them when growing, how to care for them, how to weed and thin them out, and how to keep the ground in proper condition to develop and to foster their growth and maturity."

It teaches children the difference between gardening conducted in the usual haphazard manner too often characteristic of the ranch and farm and gardening taught in the systematic, scientific manner by professional experts.

"School gardening teaches children practical elementary lessons in mixing soils, sowing seeds, potting and shifting plants, transplanting trees, making hot beds, laying out and preparing ground for the raising of vegetables, in planting, trimming, and cutting vines and shrubs, in the work of the greenhouse, repairing and painting sash, mixing and applying fungicides and insecticides, in budding, grafting, etc., etc."

Pupils are always quick to imitate their instructors and to put into practical effect the lessons learned at school. When they return home and begin to insist upon changing the old custom and practice of gardening by laying out in squares and rectangles beds for plants, flowers, and vegetables, and to prepare them for seeds, flowers, and for the transplanting of vege-

tables, thus making practical application of the lessons taught them, their parents and the old folks in particular wonder what new ideas and school foolishness have gotten into their heads. But when at harvest time they realize that crops of a far better quality and often too in greater quantity can thus be raised at much less labor and cost than formerly, then they begin to understand and to become convinced that system and science even in gardening produces far better results than their own former crude methods of gardening, and it is safe to predict that in the future system and not chance, knowledge and not ignorance will rule and govern them in all things relating to gardening.

It is interesting to note that school gardening becomes a success in every locality where it has been introduced and taught by expert teachers. The interest in gardening on the part of the children often becomes intense and rarely ever flags. The practical benefits resulting from it as noted by our most eminent educators are as follows: "The children become the most active and interested workers in it." They acquire a knowledge of gardening by doing the work of gardening. Gardening increases and develops their power of observation. It renders them quick to grasp ideas and to put them into action. The country child learns the business-like, up-to-date methods of agriculture, gardening, and tree planting.

The nature of the soil, the importance of fertilization, the conditions essential to germination and conducive to the growth of vegetables, flowers, and trees, are all taught and illustrated in a clear, practical, business-like manner in the school garden.

Watching their growth intently throughout the season from seed time to harvest time, the children acquire a daily practical knowledge of crops of many kinds far more valuable and useful than that of their parents and grand parents. These are important foundations for success in any line of business.

The interest in school gardening is becoming very marked and apparent in the older states. The brightest features in their reports are often those relating to school gardening and tree planting.

School gardening and tree planting are so closely allied as to become kindred subjects and often complements of each other. Whatever fosters and encourages the one stimulates and vitalizes the other.

THE OAK.

A traveler through a dusty road
Strewed acorns on the lea ;
And one took root and sprouted up
And grew into a tree.
The dormouse loved its dangling twigs,
The birds sweet music bore,
It stood a glory in its place
A blessing evermore.

THE CHERRY TREE.

By Longfellow.

Sweet is the air with budding leaves,
And the valley stretching far below
Is white with blossoming cherry trees,
As if just covered with the lightest snow.

THE WILLOW.

By Eben E. Rexford.

The green leaves in the willows
Laugh out their glad surprise.

By Celia Thaxter.

By the swift river's flood
The willows golden blood
Mounts to the highest spray,
More vivid day by day.

THE ELM.

By Holmes.

The elms have robed their slender sprays
With full-blown flower and embryo-leaf,
Wide o'er the clasping arch of day
Soars like a cloud their hoary chief.

THE POPLAR.

The poplar drops beside the way
Its tasseled plumes of silver-gray.

AN ARBOR DAY TREE.

Dear little tree that we plant today,
What will you be when we're old and gray,
"The savings bank of the squirrel and mouse;
For robin and wren an apartment house,
The dressing room of the butterfly's ball,
The locust's and katydid's concert hall,
The schoolboy's ladder in pleasant June,
The schoolgirl's tent in the July noon,
And my leaves shall whisper them merrily
A tale of the children who planted me".

—Youth's Companion.

THE TREE.

I love thee when thy swelling buds appear,
And one by one their tender leaves unfold,
As if they knew that warmer suns were near,
Nor longer sought to hide from winter cold;
And when with darker growth thy leaves are seen
To veil from view the early robin's nest,
I love to lie beneath thy waving screen,
With limbs by summer's heat and toil oppressed,
And when the autumn's wind have stripped thee bare,
And round thee lies the smooth untrodden snow,
When naught is thine that made thee once so fair,
I love to watch thy shadowy form below,
And through thy leafless arms to look above
On stars that brighter beam when most we need their love.

—Jones Very.

MEMORY GEMS.

I hear the wind among the trees
Play celestial harmonies

—Longfellow.

In fact there is nothing that keeps its youth,
So far as I know, but a tree and truth.

—Holmes.

Summer or winter, day or night,
The woods are ever a new delight

—Stoddard.

The little birds sang as if it were
The one day of Summer in all the year,
And the very leaves seemed to sing on the trees.

—Lowell.

Thoreau says of Spring: "March fans it, April christens it, May puts on its jackets and trousers."

There was never mystery
But 'tis figured in the flowers;
Was never secret history
But Birds tell it in the bowers.

—Emerson.

A little helpless, innocent bird,
That has but one plain passage of few notes
And sings the simple passage o'er and o'er.

—Tennyson.

"The crow doth sing as merry as the lark,
When neither is attended."

"When nature had made all her birds,
And has no cares to think on,
She gave a rippling laugh,
And out there flew a Boblinkon."

"As the little ones chip the shell,
And five wide mouths are ready for food,
Robert of Lincoln bestirs him well,
Gathering seeds for his hungry brood."

—Journal of Education.

MY FAVORITE TREE.

(If possible, let each pupil carry a branch of the trees he describes.)

First Pupil—

"I speak for the elm. It is a noble tree. It has the shape of a Greek vase and such rich foliage running down the trunk to the very roots, as if a vine were wreathed about it."

Second Pupil—

"My favorite is the maple. What a splendid cupola of leaves it builds up into the sky. And in autumn, its crimson is so rich one might call it the blush of the woods!"

Third Pupil—

"The birch is a tree for me. How like a shaft of ivory it gleams in the daylight woods! How the moonlight turns it into pearl!"

Fourth Pupil—

"What a tree is the oak! First a tiny needle, rising toward the sun, a wreath of green to endure for ages. The child gathers the violet at its foot; as a boy he pockets the acorns; as a man

he looks at its towering heights and makes it the emblem of his ambition."

Fifth Pupil—

"The oak may be the king of the lowlands, but the pine is king of the hills. There he lifts his haughty head like a warrior and when he is roused to meet the storm, the battle cry he sends down the wind is heard above all the voices of the greenwood." All—

Hail to the trees!

Patient and generous, mothers of mankind;
Arching the hills, the minstrels of the wind,
Spring's glorious flowers and summer's balmy tents.
A sharer in man's free and happier sense.
The trees bless all, and then, brown-mantled, stand,
The sturdy prophets of a golden land.

—Selected.

WHY DO WE OBSERVE ARBOR DAY?

In our relatively new country this question may arise.

In the same line we may ask:

Why did Alexander the Great plant with his own hands hundreds of trees in the avenue at Windsor?

Why did George III have such a mania for tree planting?

Why did Queen Victoria personally superintend the planting of over 5,000 trees near London, and at places she visited?

Why has the Prince of Wales planted on public occasions so many trees at home and abroad?

Why are so many great arboreta and parks of vast extent maintained in all parts of Europe?

Why is every tree labeled with botanic and common name in public gardens, parks, and even public avenues?

Why are the elements of forestry and horticulture taught in the common schools of Germany?

Why are so many forestry schools supported in every part of continental Europe?

In all cases the purpose is to create a public sentiment favorable to tree planting, and to familiarize the people with the best species and varieties of trees and the best modes and methods of planting and managing them.

During the past century the rulers and educators of Europe, from the king down to the common school teacher, have kept before the people these few primary facts in regard to trees, that our

commerce, home shelters, furniture, machines, landscape effects, depend upon tree planting and forest preservation.

Only this constant education of the masses would permit the maintenance of the rigid forest laws of nearly all continental Europe.

It has been said that the Europeans may disagree on questions of politics, religion etc., but on the forestry question, from prince to peasant, they agree that at least 33 1-3 per cent of the entire area of the country must be kept in timber blocks properly distributed for economic uses and climatic effect.

This public education also renders possible the system of fruit trees by the roadside, the beautiful little park and flower garden at the railway station and tree and shrub groupings and effects everywhere, such as we cannot reach with our present public sentiment.

To us this work is new. With a forest wealth in extent and number of value species not excelled on the earth, the first moves in the occupation of the continent have been in the way of wasteful forests destruction.

But a new era is dawning. In many ways that cannot here be enumerated we have commenced the good work which a century of growth has made nearly complete in parts of Europe.—J. L. Budd, Ames, Iowa

A LITTLE PLANTER.

Down by the wall where the lilacs grow,
Digging away with a garden hoe,
Toiling as busily as he can—
Eager and earnest, dear little man!
Spoon and shingle are lying by,
With a bit of evergreen, long since dry.

“What are you doing, dear?” I ask.
Ted for an instant stops his task,
Glances up with a sunny smile,
Dimpling his rosy cheeks the while;
“Why, it’s Arbor Day, you see,
And I’m planting a next year’s Christmas tree;
For last year, auntie, Johnny Dunn
Didn’t have even the smallest one,
And I almost cried, he felt so bad,
When I told him ’bout the splendid one we had;
And I thought if I planted this one here,

And watered it every day this year,
It would grow real fast—I think it might;
(His blue eyes filled with eager light;)
And I'm sure 'twill be, though very small,
A great deal better than nothing at all"

Then something suddenly comes between
My eyes and the bit of withered green,
As I kiss the face of our Teddy boy,
Bright and glowing with giving's joy,
And Johnny Dunn, it is plain to see,
Will have his next year's Christmas tree

PLANT A TREE.

He who plants a tree
Plants a hope.
Rootlets up through fibres blindly grope;
Leaves unfold into horizons free
So man's life must climb
From the clods of time
Unto heavens sublime.
Canst thou prophesy, thou little tree,
What the glory of thy boughs shall be?

He who plants a tree
Plants peace.
Under its green curtains jargons cease,
Leaf and zephyr murmur soothingly,
Shadows soft with sleep
Down tired eyelids creep,
Balm of slumber deep.
Never hast thou dreamed, thou blessed tree,
Of the benediction thou shalt be.

He who plants a tree,
Plants love;
Tents of coolness spreading out above
Wayfarers, he may not live to see.
Gifts that grow are best;
Hands that bless are blest;
Plant; life does the rest.
Heaven and earth help him who plants a tree,
And his work its own reward shall be.

—Lucy Larcom.

MY TREE.

Which is the best of all the trees?
Answer me, children all, if you please.
Is it the oak, the king of the wood.
That for a hundred years has stood?
The graceful elm, or the stately ash,
Or the aspen, whose leaflets shimmer and flash?

Is it the solemn and gloomy pine,
With its million needles so sharp and fine?
Ah, no! The tree that I love the best,
It buds and blossoms not with the rest;
No summer sun on its fruit has smiled,
But the ice and snow are around it piled;
But still it will bloom and bear fruit for me,
My winter bloomer! My Christmas tree!

—Youths Companion.

A FEW OLD PROVERBS.

“When the oak puts on his goslings grey
’Tis time to sow barley night or day.

“If the oak is out before the ash,
’Twill be a summer of wet and splash;
But if the ash is out before the oak,
’Twill be a summer of fire and smoke.”

”When elm leaves are as big as a shilling,
Plant kidney beans, if you are willing;
When elm leaves are as big as a penny,
You must plant beans if you wish to have any.”

“When the hawthorn bloom too early shows
We shall have still many snows.”

THE TREES.

By Lucy Larcom.

Time is never wasted listening to the trees;
If to heaven as grandly we arose as these,
Holding toward each other half their kindly grace,
Haply we were worthier of our human place.

Bending down to meet you on the hillside path;
Birch, and oak, and maple, each his welcome hath;
Each his own fine cadence, his familiar word,
By the ear accustomed, always plainly heard.

For every tree gives answer to some different mood;
This one helps you climbing; that for rest is good;
Beckoning friends, companions, sentinels they are;
Good to live and die with, good to greet afar.

Dear, inspiring, friendly dwellers of the woods,
Always reaching downward, something grand or good
From the lofty space where you breathe and live;
Royally unconscious, careless what you give!

O ye glorious creatures, heirs with us of earth!
Might we win the secret of thy loftier birth—
From our depths of being grow like you and climb
To our heights of blessing—life would be sublime!

THE SCHOOLHOUSE YARD.

(May be used as an exercise for seven pupils, or as a recitation
by one.)

1.

The schoolhouse yard was so big and bare,
No pleasant shadow nor leafy trees;
There was room enough, and some to spare,
To plant as many as ever you please.

2.

So first we set there a little pine,
For the wind to play its tunes upon,
And a paper birch, so white and fine,
For us children to write our secrets on.

3.

Then two little elms to build an arch,
Right over the gate when they grow up tall,
And a maple for tiny blooms in March,
And scarlet leaves in the early fall.

4.

A cedar tree for its pleasant smell,
A mountain ash for its berries bright,
A beech for its shade and nuts as well,
And a locust tree for its blossoms white.

5.

Then last we planted an acorn small,
To grow in its time a sturdy oak;
And somehow it seemed to us children all
That this was the funniest joke

6.

For sweet Miss Mary smiling said,
"The other trees are your very own,
But this little oak we will plant instead
For your grandchildren, and them alone."

7.

I wonder now if the little folk
That come in the days that are to be,
To frolic under the future oak,
Will be as merry and glad as we.

All—

And if they will plant their elm and beech
As we do, just in the selfsame way,
And sing their chorus and speak their speech,
And have such fun upon Arbor Day.
—Elizabeth Howland Thomas, in the Youth's Companion.

WHY WE KEEP ARBOR DAY.

(For seven children. As they take their places upon the stage,
those in seats recite the first stanza.)

Trees of the fragrant forest,
With leaves of green unfurled,
Through summer's heat, through winter's cold,
What do you do for our world?

First—

Our green leaves catch the raindrops
That fall with soothing sound,
Then drop them slowly, slowly down,
'Tis better for the ground.

Second—

When rushing down the hillside,
A mighty freshet forms,
Our giant trunks and spreading roots
Defend our happy homes.

Third—

From burning heat in summer,
We offer cool retreat,
Protect the land in winter's storm
From cold, and wind, and sleet.

Fourth—

Our falling leaves in autumn,
By breezes turned and tossed,
Will make a deep sponge carpet warm
Which saves the ground from frost.

Fifth—

We give you pulp for paper,
Our fuel gives you heat,
We furnish lumber for your homes,
And nuts and fruit to eat.

Sixth—

With strong and graceful outline,
With branches green and bare,
We fill the land through all the year
With beauty everywhere.

All—

So, listen, from the forest.
Each one a message sends
To children on this Arbor Day,
“We trees are your best friends.”

—Primary Education.

**Lines Written for an Agricultural Exhibition in 1858,
by John G. Whittier.**

This day, two hundred years ago,
The wild grape by the river's side,
And tasteless groundnut trailing low,
The table of the woods supplied.

Unknown the apple's red and gold,
The blushing tint of peach and pear;
The mirror of the Powow told
No tale of orchards ripe and rare.

Wild as the fruits he scorned to till,
These vales the idle Indian trod;
Nor knew the glad creative skill,—
The joy of him who toils with God.

O Painter of the fruits and flowers!
We thank thee for thy wise design
Whereby these humble hands of ours
In Nature's garden work with thine.

And thanks that from our daily need,
The joy of simple faith is born;
That he who smites the summer weed,
May trust thee for the autumn corn.

Give fools their gold and knaves their power;
Let fortune's bubbles rise and fall;
Who sows a field or trains a flower,
Or plants a tree, is more than all!

